

Abstract

A self-adjusting deflection controlled roll comprises a rotating roll jacket, a carrier passing axially through the roll jacket and held rotationally fixedly at its end in racks and at least one supporting member arranged at the carrier and exerting a support force on the inner side of the roll jacket in a pressing plane, with at least one axial end of the roll jacket or an axial continuation associated with it being rotationally mounted by at least one bearing on a non-rotating axial bearing sleeve of a bearing housing secured against rotation extending into the region between the roll jacket or the axial continuation and the carrier, said bearing housing being freely movable relative to the carrier substantially in the pressing plane perpendicular to the roll axis. The roll jacket is radially supported via the axial bearing sleeve of a respective bearing housing transversely to the pressing force plane and is axially fixed at the carrier at an axial end via guide means provided radially between the bearing sleeve of the relevant bearing housing and the carrier and permitting both a tilting moving and a movement of the bearing sleeve relative to the carrier substantially in the pressing plane perpendicular to the roll axis.